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10/735,018	12/12/2003	Matthew Kenneth Gracie	56704.000109	2322

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EXAMINER	
LOFTIS, JOHNNA RONEE	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/735,018	GRACIE ET AL.	
	Examiner	Art Unit	
	JOHNNA R. LOFTIS	3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a non-final office action upon examination of application number 10/735,018. Claims 1 and 3-53 are pending and have been examined on the merits discussed below.

Response to Arguments

2. Applicant's arguments, with respect to rejections under 35 USC 101 of claims 1 and 3-39 have been fully considered and are persuasive. The rejections under 35 USC 101 of claims 1 and 3-39 have been withdrawn.

3. Regarding Applicant's amendments to system claims 40-49, Examiner points out that the claim amendments are directed to steps of a method. Applicant must present amendments that clearly show the recited elements of the system are not software. As claimed, a computer is implementing the steps, this may simply mean the software modules are implemented by a computer, but that does not necessarily mean the software is part of or statically embodied in a physical medium. Rejections under 35 USC 101 are upheld.

4. In addition, new rejections under 35 USC 101 have been introduced for claims 50-53. The recited medium includes signals as pointed out in paragraph 0088, page 27, of the specification. Signals are non statutory under 35 USC 101.

5. Applicant's arguments filed with respect to "expected answers received from users" have been fully considered but they are not persuasive. Examiner first points out that the claims do not recite that each question is associated with a specific expected answer from all users. As claimed, it is construed that each question has an expected answer, but there is nothing stating

each question requires the same answer from all users as specified by Applicant in the arguments. The claim simply states there is an expected answer to a question. Therefore, since each question of Antell expects a certain answer from a user, the reference reads on the claim.

6. Further, Applicant argues neither Antell nor Peters teaches proceeding to supplemental questions when a predetermined answer is *not* given. Examiner has withdrawn previous rejections and has presented new rejections on the basis that since Peters suggests branching to questions based on a given answer, it would have been obvious to one of ordinary skill in the art to try an alternate solution, based on the premise that there are a finite number of identified, predictable solutions and one of ordinary skill in the art would expect reasonable success.

7. In the previous Office Action mailed 9/25/08, notice was taken by the Examiner that certain subject matter is old and well known in the art. Per MPEP 2144.03(c), these statements are taken as admitted prior art because no traversal of this statement was made in the subsequent response. Specifically, it has been taken as prior art that: it is old and well known in the art of customer surveys to not ask a customer a question that has already been answered/obtained to avoid repetition and inconveniencing the customer

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 50-53 are rejected as being directed toward non-statutory subject matter because they are software per se. Claim 50-53 recites "computer readable medium". The specification, paragraph 0088, page 27, states the medium can include, among other things, satellite

transmission, known as signals. Signals are not statutory under 35 USC 101. To properly determine whether a claimed invention complies with the statutory invention requirements of 35 U.S.C. 101, USPTO personnel must first identify whether the claim falls within at least one of the four enumerated categories of patentable subject matter recited in section 101 (i.e., process, machine, manufacture, or composition of matter). A claim directed to a signal per se does not appear to be a process, machine, manufacture, or composition of matter.

When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See >Diamond v.< Diehr, 450 U.S. *>175,< 185-86, 209 USPQ *>1,< 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). MPEP 2106.01 [R-6}

Claims 40-49 are also rejected as being directed toward non-statutory subject matter because they are software per se. Claim 40 recites several elements that appear to be software modules or computer programs. As drafted, the claim fails to define any structural and functional interrelationships between the software per se and other elements of the invention that permit the software's function to be realized. (See MPEP § 2106 Section IV B 1 (a)).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 3-6, 14-19, 23, 27-32, 36, 40-42, 46, 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antell et al. (U.S. 2004/0123162) and Peters et al (US 5,842,195).

As per claim 1, Antell et al. discloses a computer-implemented method of compiling a customer information set that complies with regulatory criteria, the method comprising:

providing an overall question set having a plurality of questions (paragraph 6; An overall question set is used to select questions from.);

determining from the overall question set a basic question set asked of all users, wherein each question of the basic question set is associated with an expected answer and wherein the basic question set comprises the minimum number of sequenced questions the answers to which would be sufficient to meet the regulatory criteria if no unexpected answers are given (paragraphs 7-8, 24; The questions selected from the overall question set may be ordered (i.e., sequenced) and the answers are analyzed to determine if they match like information (i.e., are expected) from a data source. Users are attempted to be authenticated by a maximum number of questions, thereby minimizing the number of questions asked.);

providing criteria for supplementing the basic question set with additional questions from the overall question set within the sequence of the basic question set, based on receiving an answer that differs from the expected answer, wherein the criteria are structured to minimize the

number of remaining questions that must be answered in order to comply with the regulatory criteria (paragraphs 9, 22-23, 34; Additional questions may be posed when responses to the previously asked questions do not meet the authentication criteria. Users are attempted to be authenticated by a maximum number of questions, thereby minimizing the number of questions asked.); and

conducting an optimized interactive customer survey, comprising:

presenting each question of the basic question set to a user (paragraphs 7-8);

receiving from the user an answer to each basic question (paragraphs 7-8);

determining if the received answer is the expected answer for the question asked (paragraphs 7-8);

informing the customer of completion of the survey once the customer provides answers to a minimum number of questions needed to comply with the regulatory criteria (inherently once the authentication takes place, the customer is informed of the completeion of any survey questions and understands they have complied with the regulatory criteria).

Antell et al does not explicitly teach upon a determination that the received answer is the expected answer, continuing in the basic question set sequence to the next question in the basic question set; upon a determination that the received answer is not the expected answer, presenting supplemental additional questions based on the predetermined sequenced criteria for supplementing the basic question set and returning to the sequence of the basic question set once th user provides the expected answer to the supplemental additional questions and repeating until all questions have been asked and answered.

Peters et al teaches a series of branched-to-questions wherein based on a specific answer (or non-answer) to a question, a series of linked questions are asked, otherwise, these branched-to-questions are not asked and the survey continues (column 5, line 49 - column 6, line 22). aT the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Antell et al with the branched questions as taught by Peters et al since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Further, the combination of Antell et al and Peters et al does not explicitly teach upon the a determination that the received answer is not the expected answer, presenting supplemental additional questions based on the predetermined sequenced criteria for supplementing the basic question set and returning to the sequence of the basic question set once th user provides the expected answer to the supplemental additional questions and repeating until all questions have been asked and answered. Examiner asserts that based on the teachings of Peters et al, it would have been obvious to one of ordinary skill in the art to try an alternate solution, based on the premise that there are a finite number of identified, predictable solutions and one of ordinary skill in the art would expect reasonable success. Since Peters et al teaches branching to new questions based on expected predetermined answers, it would have been obvious to one of ordinary skill in the art to try an alternate version of Peters et al wherein an unexpected answer initiates a set of branching questions, since there are a finite number of identified, predictable potential solutions to the recognized need and one of ordinary skill in the art could have pursued the known potential solutions with a reasonable expectation of success.

As per claim 3, Antell et al. discloses a method according to claim 1, wherein the action of conducting an optimized interactive customer survey includes:

displaying to a user the at least one question of the basic question set (see User Interface (item 19) in Figure 1); receiving from the user an answer to the at least one question of the basic question set (item 218 in Figure 2); determining whether the received answer differs from the expected answer associated with the at least one question of the basic question set (item 222 in Figure 2); responsive to a determination that the answer differs from the expected answer associated with the at least one question of the basic question set, establishing an updated question set using the overall question set, the basic question set and the criteria for modifying the basic question set (item 226 in Figure 2); and displaying to the user at least one question from the updated question set (item 228 in Figure 2).

As per claim 4, Antell et al. discloses a method according to claim 1, further comprising:

constructing a customer information set using answers received during the optimized interactive customer survey and storing the customer information set (paragraphs 6-7, 26; The answers are used to authenticate a customer, thereby formulating a customer authentication set.).

As per claim 5, Antell et al. discloses a method according to claim 1, wherein the basic question set includes a plurality of questions from the overall question set and wherein the action of conducting an optimized interactive customer survey includes:

displaying a first display question set consisting of a plurality of questions from the basic question set including at least one question having an associated answer ((item 19) in Figure 1); receiving from the user an answer to the at least one question having an associated expected

answer (item 218 in Figure 2); determining whether the received answer differs from the expected answer associated with the at least one question having an associated expected answer (item 222 in Figure 2); and responsive to a determination that the answer differs from the expected answer, establishing an updated question set using the overall question set, the basic question set and the criteria for modifying the basic question set and displaying a question set consisting of a plurality of questions from the updated question set (item 226 in Figure 2), and displaying a second question set that is different from the first displayed question set (item 228 in Figure 2).

As per claim 6, Antell et al. discloses a method according to claim 1 further comprising:

associating an anticipated answer set with at least one of the plurality of supplemental additional questions, the anticipated answer set comprising at least one anticipated answer and responsive to receiving during the optimized interactive customer survey an answer to the at least one of the plurality of supplemental additional questions that matches one of the at least one anticipated answer, determining a risk contribution factor to be associated with the received answer (paragraphs 24, 31-32, 34; Table C allows different values to be assigned to different answers. Anticipated answers may be assigned points and a scoring according to the authentication criteria is performed where the scoring is an indication of whether or not the user has been authenticated (i.e., indicating a risk of unauthentication).).

As per claim 14, Antell et al. discloses a method according to claim 1, wherein the action of conducting an optimized interactive customer survey is carried out as part of a front-end customer identification procedure (paragraph 6).

As per claim 15, Antell et al. discloses a method according to claim 1 further comprising:

determining for at least one basic question set whether an answer to the at least one basic question set may be determined from non-customer-supplied information (paragraph 6; It is determined if answers to questions may be obtained from other data sources.). Antell et al. does not expressly disclose responsive to a determination that an answer to the at least one basic question set may be determined from non-customer-supplied information, removing the at least one basic question set from the basic question set. However, Examiner takes Official Notice that it is old and well known in the art of customer surveys to not ask a customer a question that has already been answered/obtained to avoid repetition and inconveniencing the customer. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Antell et al. to remove a question to be asked of the customer if the answer has already been obtained by a non-customer means as doing so enhances convenience of taking the survey for the user as the user has less questions to answer.

Claims 16-19, 23, 27-32, 36, 40-42, 46, 50-53 recite substantially similar subject matter to claims 1, 3-6, 14, and 15 above. Therefore, claims 16-19, 23, 27-32, 36, 40-42, 46, 50-53 are rejected on the same basis as claims 1, 3-6, 14, and 15 above.

11. Claims 7-13, 20-22, 24-26, 33-35, 37-39, 43-45, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antell et al. (U.S. 2004/0123162) and Peters et al (US 5,842,195, further in view of Nagan et al. (U.S. 2003/0126049).

As per claims 7-13, the combination of Antell et al. and Peters et al does not expressly disclose a method according to claim 6 wherein the risk contribution factor is determined from a predetermined risk contribution factor value associated with the at least one anticipated answer;

wherein the risk contribution factor is determined based on a risk factor calculation that uses a first predetermined risk factor value, the first predetermined risk factor value being associated with the at least one anticipated answer; wherein the risk factor calculation also uses a second predetermined risk factor value, the second predetermined risk factor value being associated with a second anticipated answer that has been matched by a received answer; or determining an aggregate risk value. Nagan et al. discloses anticipated answers have predetermined risk contribution factor values. Total risk factors are calculated by adding the risk contribution factor values of each response submitted by the customer (paragraphs 46-47, 65-66). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Antell and Peters to determine a risk contribution factor for each anticipated answer and determine an aggregate risk value because doing so allows the system to factor in "degrees" or levels of risk indicating "degrees" or levels of unauthentication, thereby enabling the system to assess "how close" a customer is to being authenticated and therefore assess how many additional questions may be required to authenticate the customer.

Claims 20-22, 24-26, 33-35, 37-39, 43-45, 47-49 recite substantially similar subject matter to claims 7-13 above. Therefore, claims 20-22, 24-26, 33-35, 37-39, 43-45, 47-49 are rejected on the same basis as claims 7-13 above.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clark et al, US 6171112 – methods and apparatus for authenticating informed consent

Buchan et al, US 3946503 – audio-visual apparatus and method of using the apparatus for obtaining computer compatible data from an individual

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHNNA R. LOFTIS whose telephone number is (571)272-6736. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brad Bayat can be reached on 571-272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Johnna R Loftis/
Examiner, Art Unit 3624
5.7.09